

a corresponding plurality of fluid flow valves for controlling fluid communication between said plenums and the source of pressurized gas; and

a controller for controlling the flow rate of gas through said valves based on the amount of ink deposited during printing.

9. (Amended) An ink printing and drying system for high speed printing including a print head for depositing ink on a traveling sheet of material, the system being coupled to a source of pressurized gas and comprising:

a plurality of plenums associated with the print head, said plenums disposed so as to extend over the sheet and each of said plenums including an associated plurality of orifices spaced apart from one another so as to define respective drying portions thereof;

62

a corresponding plurality of fluid flow valves for controlling fluid communication between said plenums and the source of pressurized gas, one of said plurality of fluid flow valves corresponding to one of said plurality of plenums; and

a controller for controlling said valves, said controller being adapted to operate said valves independently of one another such that the flow of gas through the valves is varied in response to information about said printing.